

Reheat Heat Exchanger (RHX) (4.5 MW)

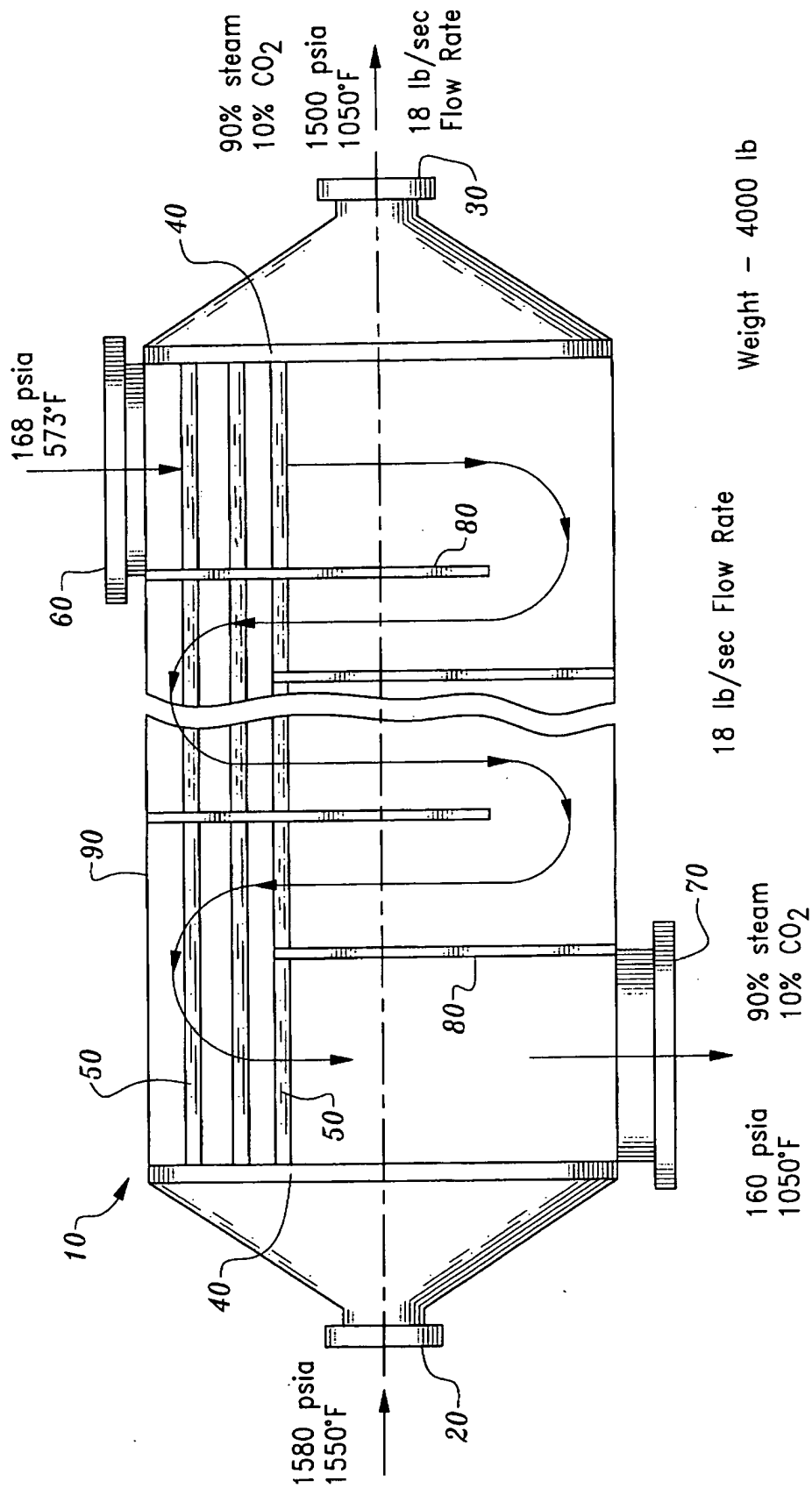


Fig. 1

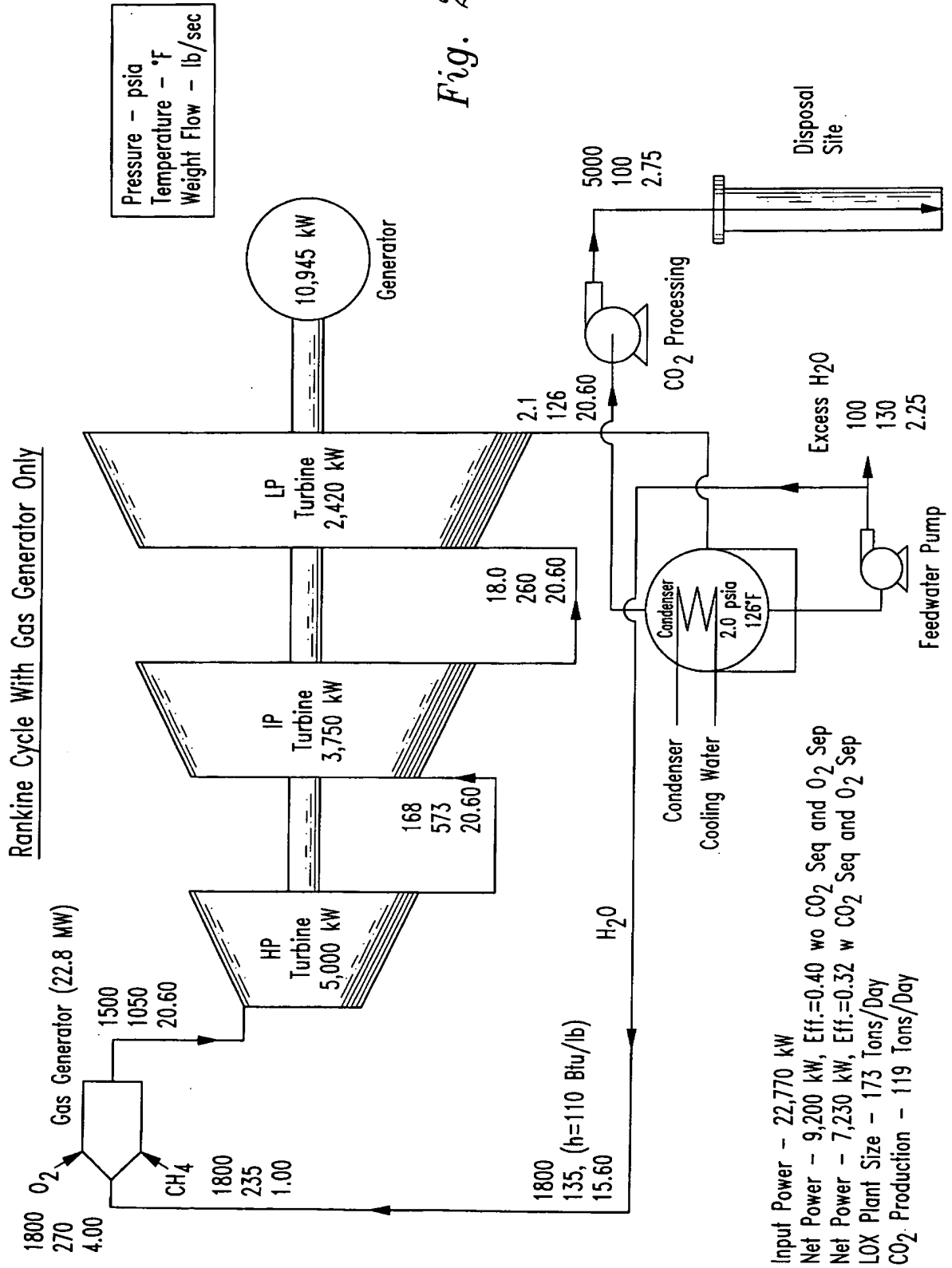


Fig. 2

+

# Rankine Cycle With Gas Generator and IPT Reheat (RHX)

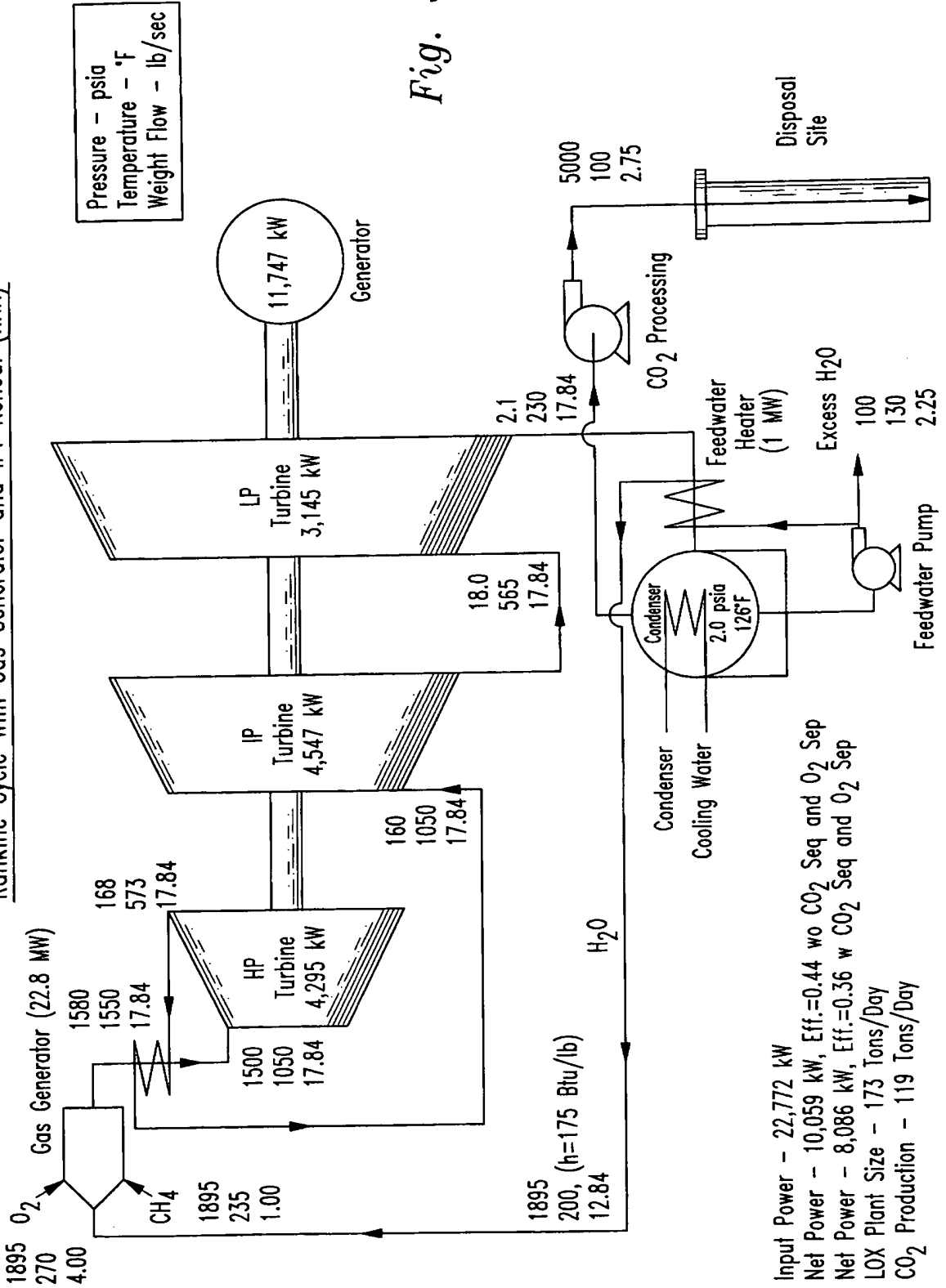


Fig. 3

+

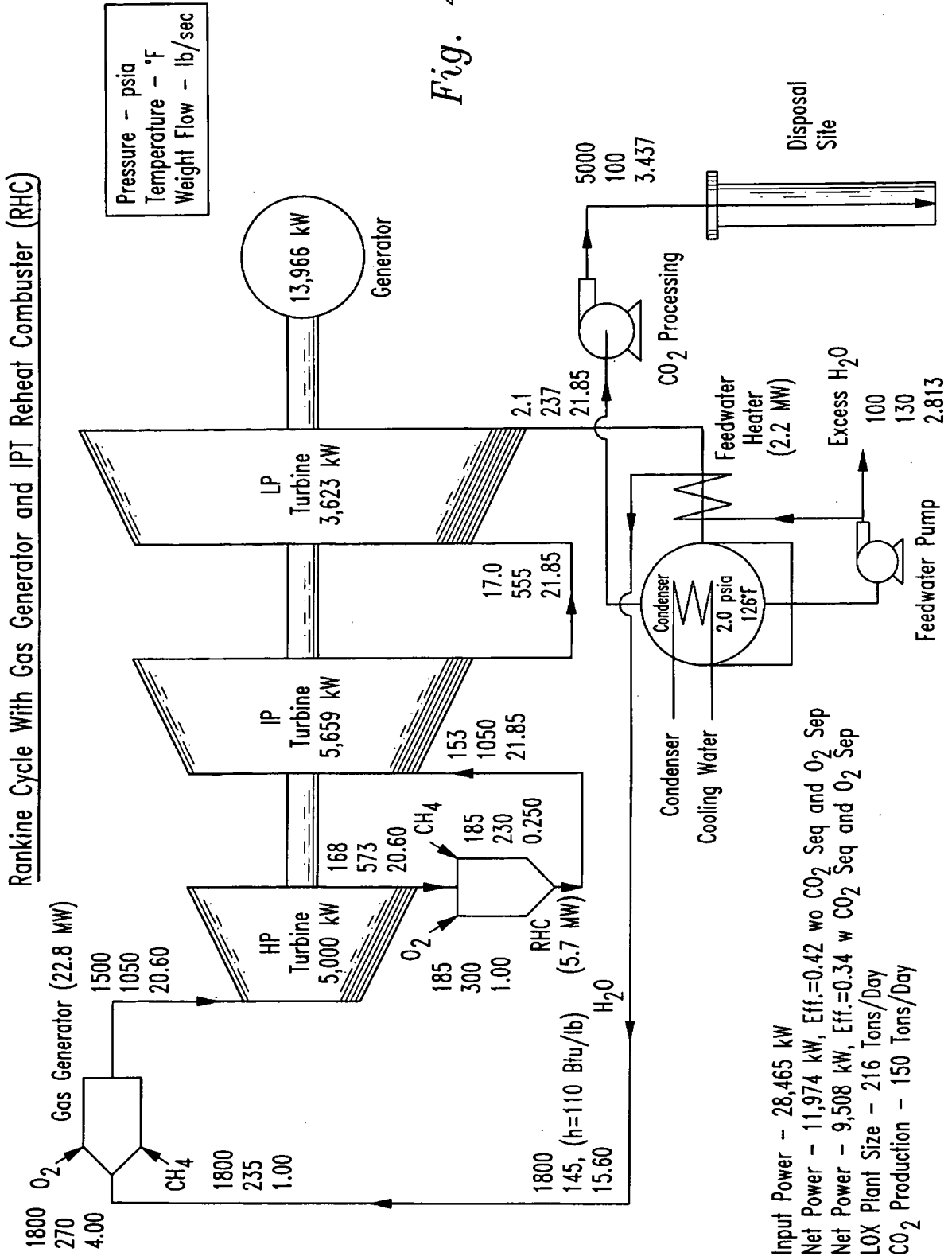


Fig. 4

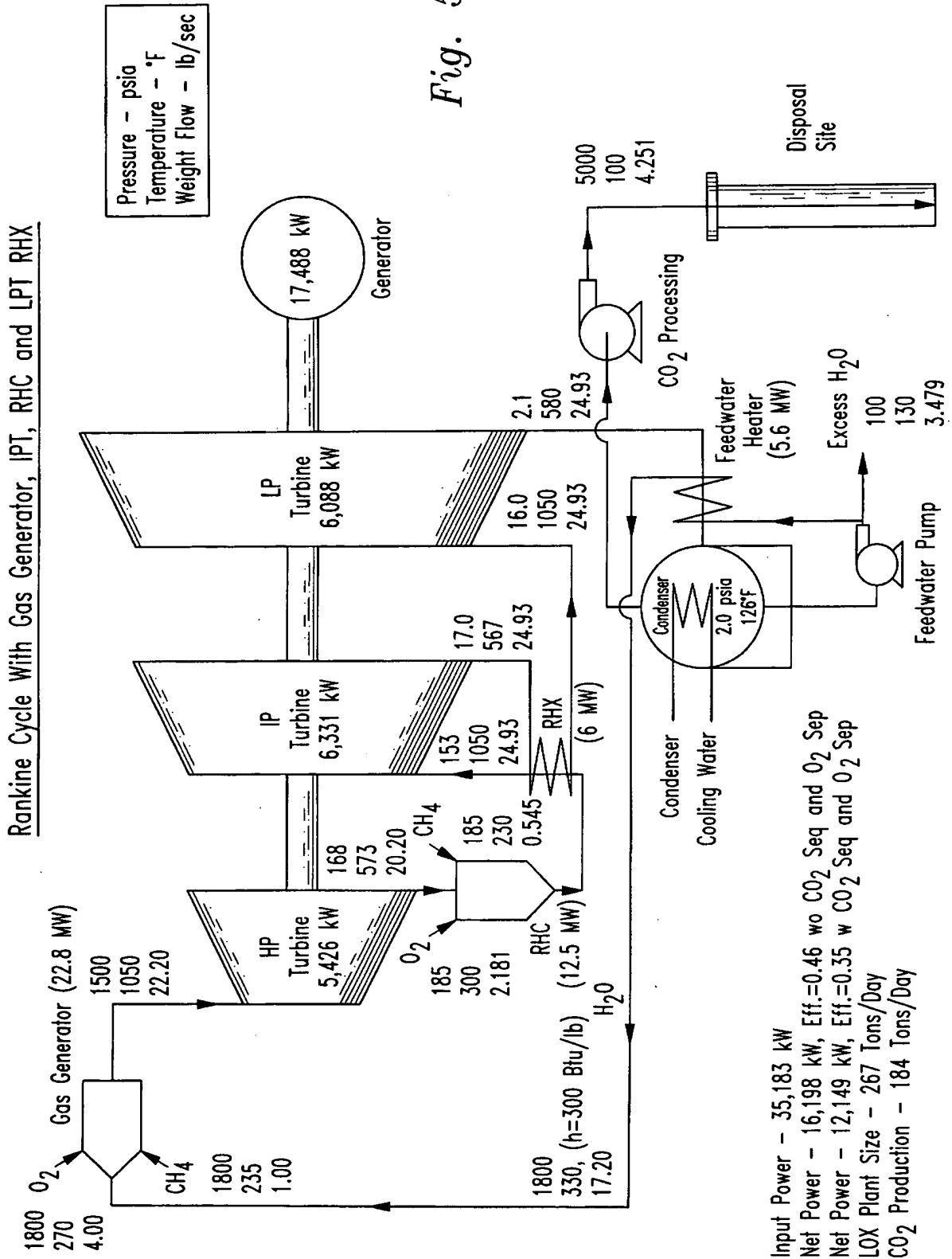


Fig. 5

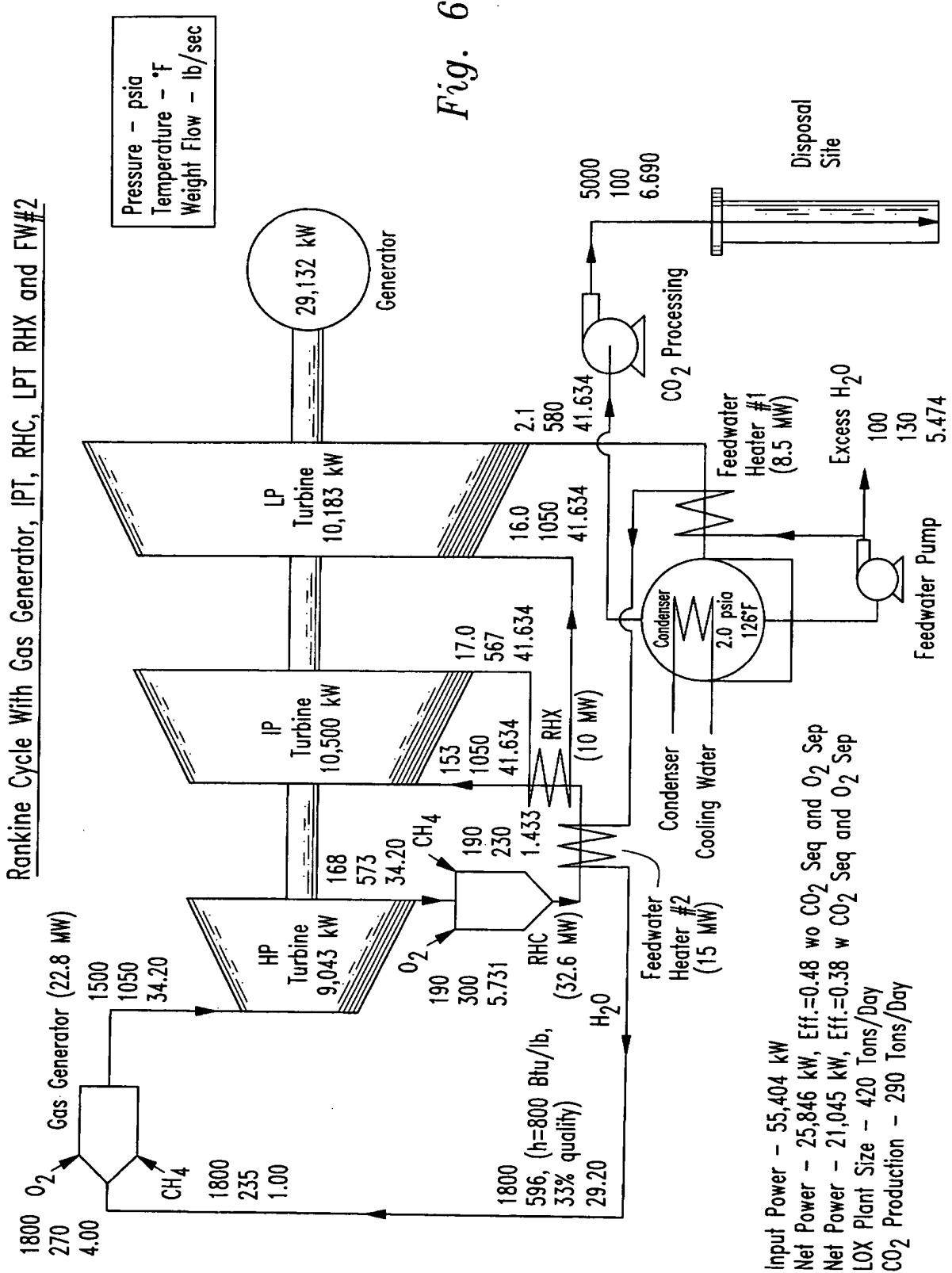


Fig. 6

Input Power - 55,404 kW  
 Net Power - 25,846 kW, Eff.=0.48 w/ CO<sub>2</sub> Sep and O<sub>2</sub> Sep  
 Net Power - 21,045 kW, Eff.=0.38 w/ CO<sub>2</sub> Sep and O<sub>2</sub> Sep  
 LOX Plant Size - 420 Tons/Day  
 CO<sub>2</sub> Production - 290 Tons/Day

Table 1  
Rankine Cycle Summary Using  
Current Steam Turbine Technology

Config.	Components	Net Input Power kW	Net Power w CO <sub>2</sub> /O <sub>2</sub> kW	Net Eff. w CO <sub>2</sub> /O <sub>2</sub> kW	Net Power wo CO <sub>2</sub> /O <sub>2</sub> kW	Net Eff. wo CO <sub>2</sub> /O <sub>2</sub> kW	LOX Plant Size Tons/Day	CO <sub>2</sub> Production Tons/Day
Fig. 2	GG Only	22,770	7,230	0.32	9,200	0.40	173	119
Fig. 3	GG, IPT RHX	22,770	8,086	0.36	10,059	0.44	173	119
Fig. 4	GG, IPT RHC	28,465	9,508	0.34	11,974	0.42	216	150
Fig. 5	GG, IPT RHC, LPTRHX	35,183	12,149	0.35	16,198	0.46	267	184
Fig. 6	GG, IPT RHC, LPTRHX & FW Heater #2	55,404	21,045	0.38	25,846	0.48	420	290

w CO<sub>2</sub>/O<sub>2</sub> - With CO<sub>2</sub> Sequestration and O<sub>2</sub> Separation Power  
wo CO<sub>2</sub>/O<sub>2</sub> - Without CO<sub>2</sub> Sequestration and O<sub>2</sub> Separation Power

Fig. 7